REMARKS

Status of the Application

This amendment is filed in response to the Office Action dated June 4, 2007. Claims 1-30 were pending. The Office Action rejected claims 1-30. By way of this amendment, claims 1, 3-8, 11-13, 15-19, 22-24, and 26-28 are amended. Thus, claims 1-30 remain pending and at issue.

Applicants respectfully request reconsideration of the rejections and a favorable action in this case.

Claim Amendments

Many of the amendments made herein were made merely to make the claims more clear, are not narrowing, and were not made for purposes of patentability.

For example, claims 3 and 4 were amended to make it more clear that the elements they recite are directed to the compiling element. Applicants respectfully submit that these amendments to claims 3 and 4 are not narrowing and were not made for reasons of patentability. The amendments to claims 16, 17, 23, and 24 were made for similar reasons, and Applicants respectfully submit that the amendments to claims 16, 17, 23, and 24 are not narrowing and were not made for reasons of patentability.

Claims 5-8, 11-13, 18, and 26-28 were amended to make explicit what was already implicitly recited in these claims read in light of the specification—namely that the non-native instructions are executed using an interpreter before compilation. Applicants respectfully submit that the amendments to claims 5-8, 11-13, 18, and 26-28 are not narrowing and were not made for reasons of patentability.

Claims 7, 8, and 19 were amended to make these claims more clear. Applicants respectfully submit that the amendments to claims 7, 8, and 19 are not narrowing and were not made for reasons of patentability.

Rejections Under 35 U.S.C. §102

Claims 1-30 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent Application Pub. No. 2004/0010785 to Chauvel et al. (hereinafter "Chauvel").

Some of the presently pending claims generally recite replacing segments of generated object code with alternative segments to improve power level or energy consumption of a computing device during execution of an application. For example, amended claim 1 now recites, *inter alia*, "wherein compiling the plurality of non-native instructions includes replacing an object code segment from the generated object code with an alternative object code segment if the alternative object code segment improves at least a selected one of a power level required and an amount of energy required to execute the generated object code in a target execution environment."

Others of the presently pending claims generally recite executing non-native instructions for an initial number of times using an interpreter and subsequently compiling the non-native instructions. For example, claim 11 recites "receiving a plurality of non-native instructions; executing the non-native instructions for an initial number of times using an interpreter; and compiling the non-native instructions into object code after executing the received non-native instructions for said initial number of times using the interpreter."

Chauvel, on the other hand, describes profiling or estimating performance characteristics of an application during execution on a computing device by comparing an application profile against a virtual machine profile. Specifically, Chauvel describes generating a byte-code based profile of the application that indicates how many times the application calls for execution of an operation or method. An API implementing a modified interpreter loop and other modifications to a Java Virtual Machine (JVM) generates the virtual machine profile. The virtual machine profile provides information indicative of a performance characteristic (i.e., execution time, energy consumption, or power level) of the device's underlying hardware for each particular application operation. The information in the application profile and the virtual machine profile are then combined to generate a performance estimate to aid a programmer in optimizing the application or to aid in efficient operation of the device. Chauvel also mentions in passing that its profiling techniques may

be adapted to take into account a just-in-time (JIT) compiler-based execution of the application.

Chauvel explains that the generated performance estimates (i.e., the application profile and the virtual machine profile) is used by the target device for scheduling applications.

Claims 1-10, 15-17, 22-25

Chauvel does not disclose or suggest all of the elements recited in each of claims 1-10, 15-17, and 22-25. For instance, with regard to claim 1, Chauvel does not disclose or suggest at least "wherein compiling the plurality of non-native instructions includes replacing an object code segment from the generated object code with an alternative object code segment if the alternative object code segment improves at least a selected one of a power level required and an amount of energy required to execute the generated object code in a target execution environment."

As discussed above, Chauvel merely describes comparing operations identified in an application profile to operations identified in a virtual machine profile for purposes of scheduling applications. Additionally, Chauvel merely mentions that its profiling techniques may be adapted to take into account a just-in-time (JIT) compiler-based execution of the application. Chauvel's description of application re-scheduling and the mere mention of a JIT compiler does not disclose or suggest compiling that includes replacing an object code segment with an alternative object code segment to improve power level or energy required to execute the object code as recited claim 1.

At least for these reasons, Chauvel does not disclose or suggest every element of claim 1 and thus, Chauvel does not anticipate claim 1.

With regard to claims 2-10, which depend from claim 1, Applicants respectfully submit that Chauvel does not anticipate claims 2-10 at least for the same reasons as claim 1.

With regard to claims 5-17 and 22-25, Applicants respectfully submit that Chauvel does not anticipate claims 5-17 and 22-25 at least for reasons similar to those discussed above with respect to claim 1.

Claims 11-14, 18-21, 26-30

Chauvel does not disclose or suggest all of the elements recited in each of claims 11-14, 18-21, and 26-30. For instance, with regard to claim 11, Chauvel does not disclose or suggest at least "receiving a plurality of non-native instructions; executing the non-native instructions for an initial number of times using an interpreter; and compiling the non-native instructions into object code after executing the received non-native instructions for said initial number of times using the interpreter."

Chauvel mentions modifying the interpreter loop of a JVM to produce a virtual machine profile during execution of an application. Chauvel also mentions that its profiling techniques may be adapted to take into account a just-in-time (JIT) compiler-based execution of the application. Chauvel, however, does not disclose or suggest executing non-native instructions for an initial number of times using an interpreter and subsequently compiling the non-native instructions as recited in claim 11. At least for these reasons, Chauvel does not disclose or suggest every element of claim 11 and thus, Chauvel does not anticipate claim 11.

With regard to claims 12-14, which depend from claim 11, Applicants respectfully submit that Chauvel does not anticipate claims 12-14 at least for the same reasons as claim 11.

With regard to claims 18-21 and 26-30, Applicants respectfully submit that Chauvel does not anticipate claims 18-21 and 26-30 at least for reasons similar to those discussed above with respect to claim 11.

Conclusion

In view of the above amendment and arguments, Applicants submit that the pending application is in condition for allowance and an early action so indicating is respectfully requested.

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Respectfully submitted,

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